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	In re Application of

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File Information Unit

Application Number	Filed
08/846,017	5-9-97

Group Art Unit	Examiner

Paper No. #32

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I hereby request access under 37 CFR 1.14(a)(3)(iv) to the application file record of the above-
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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

This patent is subject to a terminal dis-
claimer.

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May 6, 1997, now Pat. No. 6,093,809, which is a continu-
ation-in-part of application No. 08/846,017, filed on Apr. 25,
1997, which is a continuation-in-part of application No.
08/844,419, filed on Apr. 18, 1997, now abandoned, which
is a continuation-in-part of application No. 08/724,643, filed
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(52) U.S. Cl. 435/325; 435/320.1; 435/7.1;
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(56) **References Cited**

U.S. PATENT DOCUMENTS

3,817,837	6/1974	Tanenholtz et al.	195/103.5
3,850,752	11/1974	Schuurs et al.	195/103.5
3,939,350	2/1976	Kronick et al.	250/365
3,996,345	12/1976	Ullman et al.	424/12
4,275,149	6/1981	Litman et al.	435/7
4,277,437	7/1981	Maggio	422/61
4,366,241	12/1982	Tom et al.	435/7
4,683,195	7/1987	Mullis et al.	435/6
4,683,202	7/1987	Mullis	435/91
4,816,567	3/1989	Cabilly et al.	530/387
4,965,188	10/1990	Mullis et al.	435/6
5,489,508	2/1996	West et al.	435/6
5,583,016	12/1996	Villeponteau et al.	435/91.3
5,747,317	5/1998	Cao . .	
5,770,422	6/1998	Collins .	
6,093,809	7/2000	Cech et al. .	

FOREIGN PATENT DOCUMENTS

9154575　6/1997　(JP) .

WO 93/23572	11/1993	(WO) .	
WO 95/13382	5/1995	(WO) .	
WO 96/01835	1/1996	(WO) .	
WO 96/12811	5/1996	(WO) .	
WO 96/19580	6/1996	(WO) .	
WO 96/40868	12/1996	(WO) .	
WO 98/01542	1/1998	(WO) .	
WO 98/01543	1/1998	(WO) .	
WO 98/08938	2/1998	(WO) .	
WO 98/07838	3/1998	(WO) .	
WO 98/21343	5/1998	(WO) .	
WO 98/23759	6/1998	(WO) .	
WO 98/37181	8/1998	(WO) .	
WO 98/45450	10/1998	(WO)	C12N/15/54
WO98/59040	12/1998	(WO)	C12N/9/00
WO99/01560	1/1999	(WO)	C12N/15/54

OTHER PUBLICATIONS

Hillier, et al., Direct Submission to GenBank, EST Data-
base, Accession No. W70315, Available Oct. 17, 1996.*

Feng et al., "The RNA Componant of Human Telomerase,"
1995, *Science* 269:1236.

Zakian, "Telomeres: Beginning to Understand the End,"
Science 270:1601 [1995].

Blackburn and Gall, "A tandemly repeated sequence at the
termini of the extrachromosomal ribosomal RNA genes in
Tetrahymena," *J. Mol. Biol.*, 120:33 [1978].

Oka et al., "Inverted terminal repeat sequence in the macro-
nuclear DNA of *Stylonychia pustulata*," *Gene* 10:301
[1980].

Klobutcher et al., "All gene–sized DNA molecules in four
species of hypotrichs have the same terminal sequence and
an unusual 3' terminus," *Proc. Natl. Acad. Sci.*, 78:3015
[1981].

Lingner et al., "Telomerase RNAs of different ciliates have
a common secondary structure and a permuted template,"
Genes Develop., 8:1984 [1994].

Biessmann et al., "Addition of Telomere–Associated HeT
DNA Sequences "Heals" Broken Chromosome Ends in
Drosophila," *Cell* 61:663 [1990].

(List continued on next page.)

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(57)　　　　　　**ABSTRACT**

The present invention is directed to telomerase nucleic acids
and amino acids. In particular, the present invention is
directed to nucleic acid and amino acid sequences encoding
various telomerase protein subunits and motifs, including
the 123 kDa and 43 kDa telomerase protein subunits of
Euplotes aediculatus, and related sequences from
Schizosaccharomyces, Saccharomyces sequences, and
human telomerase. The present invention is also directed to
polypeptides comprising these telomerase protein subunits,
as well as functional polypeptides and ribonucleoproteins
that contain these subunits.

12 Claims, 81 Drawing Sheets